



A taxonomic survey of the genus *Vitis* L. (Vitaceae) in Italy, with special reference to Elba Island (Tuscan Archipelago)

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Abstract

As resulted from recent floristic investigations conducted in southern and central Europe, the genus *Vitis* proved to be, in these areas, an intricate critical group, whose interpretation, often influenced by ampelographic approaches, needed to be clarified in a strict taxonomic sense. The current paper analyzes the taxonomy and the distribution of seven taxa recorded in Italy and assigns new names to three nothospecies, naturalized and/or invasive in additional European countries: *V. ×instabilis* (= *V. riparia* × *V. rupestris*), *V. ×koberi* (= *V. berlandieri* × *V. riparia*), *V. ×ruggerii* (= *V. berlandieri* × *V. rupestris*). Nomenclatural and systematic aspects regarding *V. vinifera* are also discussed. Original and detailed descriptions, identification keys, illustrations and information on distribution and ecology are provided.

Key words: alien species, Italy, nothotaxa, systematics, *Vitis*

Introduction

Linnaeus described the genus *Vitis* Linnaeus (1753: 202, 1754: 95) on the basis of the European grapevine (*V. vinifera* Linnaeus 1753: 202), later designated as the lectotype of the genus (Britton & Brown 1913; Hitchcock in Hitchcock & Green 1929), to which were gradually ascribed further different species; today, only a part of them persist in their original attribution, as a number of species were subsequently transferred to distinct genera, such as *Ampelocissus* Planchon [1884: 371(–372)], *Ampelopsis* Michaux [1803a: 159(–160)], *Cayratia* Jussieu (1818: 103), and even *Schefflera* Forster & Forster (1775: 23), a representative of the Araliaceae. Currently, *Vitis* includes about 60 species, mainly distributed in the northern Hemisphere (Wen 2007, Ren & Wen 2007), with a slight numerical prevalence in North America, where a major diversity of the genus is recorded and evidenced by the presence, besides the nominal section (distributed between the southern United States and Mexico), of the sect. *Muscadinia* Planchon (1887: 324) [≡ subgen. *Muscadinia* (Planchon) Rehder (1927: 601)]; as supported by molecular studies (Tröndle *et al.* 2010, Zecca *et al.* 2011, Nie *et al.* 2012), this section has to be considered a separate genus (Weakley *et al.* 2011), *Muscadinia* (Planchon) Small (1903: 756, 1335), represented by two species, *M. popenoei* [Fennell 1940: 17(–19)] Weakley & Gandhi in Weakley *et al.* (2011: 453), and *M. rotundifolia* (Michaux 1803b: 231) Small (1903: 757, 1335), the latter articulated in three varieties: *munsoniana* (Simpson ex Planchon 1887: 615) Weakley & Gandhi in Weakley *et al.* (2011: 452), *pygmaea* (McFarlin ex Ward 2006: 219) Weakley & Gandhi in Weakley *et al.* (2011: 452), and *rotundifolia*. A third species should be added to this genus,

Etymology:—dedicated to Antonio Ruggeri (1859–1915), Italian agronomist, who selected in 1897 the hybrid ‘140 Ru’, one of the most widespread and employed rootstock in viticulture (Galet 1988, Tricamo 2010).

Ecology:—dry and compact soils; calcifile, heliophilous.

Area of origin and distribution in Europe:—rootstock hybrid originated in Europe. In Europe, it is known as a naturalized alien in Spain (Laguna Lumbreras 2004).

Distribution in Italy:—Lombardy (Ardenghi *et al.* 2010), and Tuscany (Lazzeri *et al.* 2013a, but only as casual); naturalized.

Distribution and habitat in Elba island:—rather rare: recorded from Campo nell’Elba and Capoliveri municipalities (Fig. 16); edges of roads, and shrublands at 4–327 m.

Degree of naturalization in Elba island:—naturalized.

Rootstock use:—frequent. In Italy, this hybrid is employed in nine rootstocks; among these, ‘140 Ru’, ‘1103 P’, ‘779 P’, and ‘775 P’ are the most used, mainly in the central and southern regions. They are characterized by resistance to drought and limestone.

Notes:—the scarce diffusion of this hybrid in the wild is possibly due to its recent employment in the Italian vineyards and to its difficult reproduction from cuttings (Eynard & Dalmaso 1990).

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